

PRELIMINARY AMENDMENT
New U.S. National Stage Entry of PCT/JP2004/005447

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A mobile communication system comprising:

a base station; and

a mobile station which performs data transmission/reception with said base station using a wireless link set between them,

wherein said base station comprises:

means for transmitting a downlink individual channel to the mobile station;

means for starting synchronization establishment operation of an uplink individual channel in response to transmission of the uplink individual channel from the mobile station to the base station; and

means for performing transmission/reception of data to be transmitted in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at a third timing of a specified cycle previously set and the data to be transmitted between the base station and the mobile station exists,

wherein said mobile station comprises:

means for starting synchronization establishment operation of the downlink individual channel at a second timing of a specified cycle previously set;

means for starting transmission of the uplink individual channel to the base station at the time when the synchronization of the downlink has been established;

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

means for performing transmission/reception of data to be transmitted in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the third timing of a specified cycle previously set and the data to be transmitted between the base station and the mobile station exists; and

means for suspending at least one of the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the third timing and the data to be transmitted between the base station and the mobile station does not exist, and

wherein when the synchronization of the uplink individual channel or the downlink individual channel has not been established at the third timing, the synchronization establishment operation is continued.

2. (original): The mobile communication system according to claim 1, wherein said base station and mobile station further comprise means for continuing the synchronization establishment operation in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

3. (original): The mobile communication system according to claim 1, wherein said mobile station further comprises means for continuing the synchronization establishment operation by continuing the transmission of the uplink individual channel or

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

reception of the downlink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

4. (original): The mobile communication system according to claim 1, wherein said base station further comprises means for continuing the synchronization establishment operation by continuing the transmission of the downlink individual channel or reception of the uplink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

5. (original): A mobile communication system comprising:
a base station; and
a mobile station which performs data transmission/reception with the base station using a wireless link set between them,
wherein said base station comprises:
means for transmitting a downlink individual channel to the mobile station;
means for starting synchronization establishment operation of an uplink individual channel to be transmitted from the mobile station to base station at a first timing of a specified cycle previously set; and
means for performing transmission/reception of data to be transmitted in the case where the synchronization between the uplink individual channel and downlink individual channel has

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

been established at a third timing of a specified cycle previously set and the data to be

transmitted between the base station and the mobile station exists,

wherein said mobile station comprises:

means for transmitting the uplink individual channel to the base station;

means for starting synchronization establishment operation of the downlink individual channel at a second timing of a specified cycle previously set;

means for performing transmission/reception of data to be transmitted in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at a third timing of a specified cycle previously set and the data to be transmitted between the base station and mobile station exists; and

means for suspending at least one of the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the third timing and the data to be transmitted between the base station and the mobile station does not exist, and

wherein when the synchronization of the uplink individual channel or the downlink individual channel has not been established at the third timing, the synchronization establishment operation is continued.

6. (original): The mobile communication system according to claim 5, wherein

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

said base station and the mobile station further comprises means for continuing the synchronization establishment operation in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

7. (original): The mobile communication system according to claim 5, wherein said mobile station further comprises means for continuing the synchronization establishment operation by continuing the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

8. (original): The mobile communication system according to claim 5, wherein said base station further comprises means for continuing the synchronization establishment operation by continuing the transmission of the downlink individual channel or reception of the uplink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

9. (currently amended): The mobile communication system according to ~~any one of claims 1 to 8~~claim 1, wherein

said base station is configured to transmit state update information indicating whether the mobile station can perform data transmission/reception in the case where the synchronization of a wireless link has been established at the third timing, and

PRELIMINARY AMENDMENT
New U.S. National Stage Entry of PCT/JP2004/005447

said mobile station is configured to be set to active state in which the data transmission/reception can be performed or suspend state in which the data transmission/reception cannot be performed based on the transmission/reception state update information.

10. (currently amended): The mobile communication system according to ~~any one of claims 1 to 9~~claim 1, wherein

said base station is configured to transmit state update information indicating active state to the mobile station in the case where the synchronization of a wireless link has not been established at the third timing.

11. (currently amended): The mobile communication system according to ~~any one of claims 5 to 10~~claim 5, wherein

said mobile station is configured to perform notification of synchronization establishment completion information in response to completion of the synchronization establishment of the downlink individual channel in the case where the synchronization of a wireless link has not been established at the third timing and reception of the downlink individual channel is continued.

12. (currently amended): The mobile communication system according to ~~any one of claims 1 to 11~~claim 1, wherein

PRELIMINARY AMENDMENT
New U.S. National Stage Entry of PCT/JP2004/005447

said base station is configured to notify the mobile station of synchronization unestablishment information in the case where the synchronization of a wireless link has not been established at the third timing.

13. (original): A base station that performs data transmission/reception with one or more mobile stations using a wireless link set between them, comprising:

means for transmitting a downlink individual channel to the mobile station;

means for starting synchronization establishment operation of an uplink individual channel in response to transmission of the uplink individual channel from the mobile station to the own station;

means for performing transmission/reception of data to be transmitted in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at a first timing of a specified cycle previously set and the data to be exchanged with the mobile station exists;

means for suspending data transmission/reception for the mobile station in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the first timing and the data to be exchanged with the mobile station does not exist; and

means for continuing the synchronization establishment operation by continuing the transmission of the downlink individual channel or reception of the uplink individual channel in

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the first timing.

14. (original): The base station according to claim 13, wherein said base station is configured to transmit state update information indicating whether the mobile station can perform data transmission/reception in the case where the synchronization of a wireless link has been established at the first timing.

15. (currently amended): The base station according to claim 13 ~~or 14~~, wherein said base station is configured to transmit state update information indicating active state to the mobile station in the case where the synchronization of a wireless link has not been established at the first timing.

16. (currently amended): The base station according to ~~any one of claims 13 to 15~~claim 13, wherein said base station is configured to notify the mobile station of synchronization unestablishment information in the case where the synchronization of a wireless link has not been established at the first timing.

17. (original): A mobile station for performing data transmission/reception with a base station using a wireless link set between them, comprising:

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

means for starting synchronization establishment operation of a downlink individual channel transmitted from the base station at a first timing of a specified cycle previously set;

means for starting transmission of an uplink individual channel to the base station at the time when the synchronization of the downlink has been established;

means for performing transmission/reception of data to be transmitted in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at a second timing of a specified cycle previously set and the data to be exchanged the base station exists;

means for suspending at least one of the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the second timing of a specified cycle previously set and the data to be exchanged with the base station does not exist; and

means for continuing the synchronization establishment operation by continuing the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the second timing.

18. (original): A mobile station for performing data transmission/reception with a base station using a wireless link set between them, comprising:

means for transmitting an uplink individual channel to the base station;

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

means for starting synchronization establishment operation of a downlink individual channel transmitted from the base station at a first timing of a specified cycle previously set;

means for performing transmission/reception of data to be transmitted in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at a second timing of a specified cycle previously set and the data to be exchanged with the base station exists;

means for suspending at least one of the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the second timing and the data to be exchanged with the base station does not exist; and

means for continuing the synchronization establishment operation by continuing the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the second timing.

19. (currently amended): The mobile station according to claim 17 or 18, wherein said mobile station is configured to be set to active state in which the data transmission/reception can be performed or suspend state in which the data transmission/reception cannot be performed based on transmission/reception state update information that the base station transmits in the case where the synchronization of a wireless link has been established at the second timing.

PRELIMINARY AMENDMENT
New U.S. National Stage Entry of PCT/JP2004/005447

20. (currently amended): The mobile station according to ~~any one of claims 17 to 19~~ claim 17, wherein

 said mobile station is configured to perform notification of synchronization establishment completion information in response to completion of the synchronization establishment of the downlink individual channel in the case where the synchronization of a wireless line has not been established at the second timing and reception of the downlink individual channel is continued.

21. (original): A wireless communication method for use in a mobile communication system including a base station and a mobile station which performs data transmission/reception with the base station using a wireless link set between them, said method comprising:

 a step in which the base station transmits a downlink individual channel to the mobile station;

 a step in which the base station starts synchronization establishment operation of an uplink individual channel in response to transmission of the uplink individual channel from the mobile station to the base station;

 a step in which the mobile station starts synchronization establishment operation of the downlink individual channel at a second timing of a specified cycle previously set;

 a step in which the mobile station starts transmission of the uplink individual channel to the base station at the time when the synchronization of the downlink has been established;

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

a step in which the base station and the mobile station perform transmission/reception of data to be transmitted in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the third timing of a specified cycle previously set and the data to be transmitted between the base station and mobile station exists;

a step in which the mobile station suspends at least one of the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the third timing and the data to be transmitted between the base station and mobile station does not exist; and

a step in which when the synchronization of the uplink individual channel or the downlink individual channel has not been established at the third timing, the synchronization establishment operation is continued.

22. (original): The wireless communication method according to claim 21, further comprising

a step in which the base station and the mobile station continue the synchronization establishment operation in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

23. (original): The wireless communication method according to claim 21, further comprising

a step in which the mobile station continues the synchronization establishment operation by continuing the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

24. (original): The wireless communication method according to claim 21, further comprising

a step in which the base station continues the synchronization establishment operation by continuing the transmission of the downlink individual channel or reception of the uplink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

25. (original): A wireless communication method for use in a mobile communication system including a base station and a mobile station which performs data transmission/reception with the base station using a wireless link set between them, comprising:

a step in which the base station transmits a downlink individual channel to the mobile station;

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

a step in which the base station starts synchronization establishment operation of an uplink individual channel transmitted from the mobile station to the base station at a first timing of a specified cycle previously set;

a step in which the mobile station transmits of the uplink individual channel to the base station;

a step in which the mobile station starts synchronization establishment operation of the downlink individual channel at a second timing of a specified cycle previously set;

a step in which the base station and the mobile station perform transmission/reception of data to be transmitted in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the third timing of a specified cycle previously set and the data to be transmitted between the base station and the mobile station exists;

a step in which the mobile station suspends at least one of the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization between the uplink individual channel and downlink individual channel has been established at the third timing and the data to be transmitted between the base station and the mobile station does not exist; and

a step in which when the synchronization of the uplink individual channel or the downlink individual channel has not been established at the third timing, the synchronization establishment operation is continued.

PRELIMINARY AMENDMENT
New U.S. National Stage Entry of PCT/JP2004/005447

26. (original): The wireless communication method according to claim 25, further comprising

a step in which the base station and the mobile station continue the synchronization establishment operation in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

27. (original): The wireless communication method according to claim 25, further comprising

a step in which the mobile station continues the synchronization establishment operation by continuing the transmission of the uplink individual channel or reception of the downlink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

28. (original): The wireless communication method according to claim 25, further comprising

a step in which the base station continues the synchronization establishment operation by continuing the transmission of the downlink individual channel or reception of the uplink individual channel in the case where the synchronization of the uplink individual channel or downlink individual channel has not been established at the third timing.

PRELIMINARY AMENDMENT
New U.S. National Stage Entry of PCT/JP2004/005447

29. (currently amended): The wireless communication method according to ~~any one of claims 21 to 28~~claim 21, further comprising

a step in which the base station transmits state update information indicating whether the mobile station can perform data transmission/reception in the case where the synchronization of a wireless link has been established at the third timing, and

a step in which the mobile station is set to active state in which the data transmission/reception can be performed or suspend state in which the data transmission/reception cannot be performed based on transmission/reception state update information.

30. (currently amended): The wireless communication method according to ~~any one of claims 21 to 29~~claim 21, further comprising

a step in which the base station transmits state update information indicating active state to the mobile station in the case where the synchronization of a wireless link has not been established at the third timing.

31. (currently amended): The wireless communication method according to ~~any one of claims 25 to 31~~claim 25, further comprising

a step in which the mobile station performs notification of synchronization establishment completion information in response to completion of the synchronization establishment of the downlink individual channel in the case where the synchronization of a wireless link has not

PRELIMINARY AMENDMENT
New U.S. National Stage Entry of PCT/JP2004/005447

been established at the third timing and reception of the downlink individual channel is continued.

32. (currently amended): The wireless communication method according to ~~any one of claims 21 to 31~~ claim 21, further comprising a step in which the base station notifies the mobile station of synchronization unestablishment information in the case where the synchronization of a wireless link has not been established at the third timing.

33. (new): The mobile station according to claim 18, wherein said mobile station is configured to be set to active state in which the data transmission/reception can be performed or suspend state in which the data transmission/reception cannot be performed based on transmission/reception state update information that the base station transmits in the case where the synchronization of a wireless link has been established at the second timing.

34. (new): The mobile station according to claim 18, wherein said mobile station is configured to perform notification of synchronization establishment completion information in response to completion of the synchronization establishment of the downlink individual channel in the case where the synchronization of a wireless line has not

PRELIMINARY AMENDMENT
New U.S. National Stage Entry of PCT/JP2004/005447

been established at the second timing and reception of the downlink individual channel is continued.

35. (new): The wireless communication method according to claim 25, further comprising

a step in which the base station transmits state update information indicating whether the mobile station can perform data transmission/reception in the case where the synchronization of a wireless link has been established at the third timing, and

a step in which the mobile station is set to active state in which the data transmission/reception can be performed or suspend state in which the data transmission/reception cannot be performed based on transmission/reception state update information.

36. (new): The wireless communication method according to claim 25, further comprising

a step in which the base station transmits state update information indicating active state to the mobile station in the case where the synchronization of a wireless link has not been established at the third timing.

37. (new): The wireless communication method according to claim 25, further comprising

PRELIMINARY AMENDMENT

New U.S. National Stage Entry of PCT/JP2004/005447

a step in which the base station notifies the mobile station of synchronization unestablishment information in the case where the synchronization of a wireless link has not been established at the third timing.

38. (new): The mobile communication system according to claim 5, wherein said base station is configured to transmit state update information indicating whether the mobile station can perform data transmission/reception in the case where the synchronization of a wireless link has been established at the third timing, and
said mobile station is configured to be set to active state in which the data transmission/reception can be performed or suspend state in which the data transmission/reception cannot be performed based on the transmission/reception state update information.

39. (new): The mobile communication system according to claim 5, wherein said base station is configured to transmit state update information indicating active state to the mobile station in the case where the synchronization of a wireless link has not been established at the third timing.

40. (new): The mobile communication system according to claim 5, wherein

PRELIMINARY AMENDMENT
New U.S. National Stage Entry of PCT/JP2004/005447

said base station is configured to notify the mobile station of synchronization unestablishment information in the case where the synchronization of a wireless link has not been established at the third timing.